

RESEARCH PAPER

# Quality of Life in Personal Social Ecosystems: Further Psychometric Evaluation and Hungarian Adaptation of the Experience in Personal Social Systems Questionnaire

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**Introduction:** Hunger et al. (2014, 2015, 2017) developed the Experience in Personal Social Systems Questionnaire (EXIS.pers) to assess individuals' perceived functioning in their personal ecosystems.

**Aims:** The present study aims to 1) provide further data regarding this instrument's psychometric characteristics that have not yet been investigated, as well as 2) describe the scale's Hungarian adaptation.

**Methods:** The present data set consisted of 400 questionnaires of 182 individuals recruited from the general population (83.8% female,  $M_{age} = 39.8$  years,  $SD_{age} = 9.3$  years) participating in repeated assessments. The Brief Symptom Inventory, the SCOFF screening test, the Patient Health Questionnaire-15, the Meaning in Life Questionnaire, and the WHO Well-being Index were used to investigate construct validity.

**Results:** A bifactor structure of the EXIS.pers fitted the data best according to the confirmatory factor analytic models. The results confirmed the scalar invariance of the best fitting bifactor model across both sex and time. Internal consistency of both the subscale and total scores was good according to both traditional (Cronbach's alpha) and more advanced (omega) indicators. Test-retest reliability with one- and five-month time lag was appropriate, as well. EXIS.pers scores showed significant inverse association with all 13 indicators of psychopathology and positive associations with both indicators of positive mental health suggestive of appropriate validity.

**Conclusions:** The results indicate that the EXIS.pers can be used with confidence when comparing men and women or in studies involving repeated-measures designs, and that the Hungarian version serves as a reliable and valid adaptation of the original instrument.

**Keywords:** personal social systems, confirmatory factor analysis, validity, reliability, cultural adaptation

## Introduction

Even though many psychotherapy interventions directly or indirectly aim to change how people function and feel in their narrower social environment (e.g., current family, family of origin, or circle of close friends), relatively little effort has been devoted in effectiveness and efficacy research to assessing individuals' perceived functioning or quality of life strictly within these personal ecosystems. This may be at least partly due to the scarcity of relevant assessment tools in that area (Hunger et al., 2017). The Experience in Personal Social Systems Questionnaire (EXIS.pers) was developed to fill this gap, allowing researchers to assess the actual status and changes in how individuals perceive their fit and comfort level within their important social systems (Hunger, 2015; Hunger et al., 2017; Hunger, Bornhäuser, Weinhold, and Schweitzer, 2014).

When developing the questionnaire's original item pool, two prominent figures of the German systemic psychotherapy scene were interviewed. Their reports about the possible outcomes of their work and their perceptions of systemic change were then compared to and integrated into the literature of systemic family therapy as well as the broader fields of applied psychology (Hunger et al., 2017). In a pilot study ( $N = 179$ ), exploratory factor analysis was used to investigate the first prototype of the EXIS questionnaire, which included 10 items for all five factors (Belonging, Autonomy, Accord, Confidence, and Clarity). The number of factors to retain was determined using parallel analysis and final item selection relied on both statistical and theoretical considerations (e.g., to be as short as possible without compromising reliability) (Hunger et al., 2017). These analyses resulted in the development of a reduced-length and final version, which included four factors (Belonging, Autonomy, Accord and Confidence) captured by three items each, and an additional question about who the respondent was thinking of while completing the questionnaire (i.e., parents, partner, offspring, friends or others). All subscales, as well as the total scale, had good internal consistency in this study, with Cronbach's alphas ranging from .79 to .83 (Hunger et al., 2017).

The dimension of *Belonging* can be described as the feeling of being part of the given social system both emotionally and instrumentally (Hunger et al., 2017). *Autonomy* is defined as being assertive in the social system by demarking boundaries and standing for one's needs, while believing that discussing and reconsidering certain roles, rights, and responsibilities remain possible. *Accord* refers to the concept of accepting one's social system the way it exists, including both negative and positive aspects and experiences. Finally, the dimension of *Confidence* reflects perceived self-efficacy, referring to the trust in the individual's and their social system's coping capabilities.

In a second study, the scale developers investigated the psychometric properties of the EXIS.pers questionnaire on an independent German- ( $N = 634$ ) and English-speaking ( $N = 310$ ) sample (Hunger et al., 2017). Using confirmatory factor analysis, a good fit has been observed both with a first-order, a four-factor, and a bifactor model including the same four domain-specific factors and a general factor, although the latter model's fit indices were slightly better. Internal consistency for the total score was excellent in both languages (Cronbach's alpha = .91 and .92), while that of the subscale scores came to good or very good in both samples (Cronbach's alphas between .74 and .88).

In terms of the convergent and divergent validity for the EXIS.pers, relatively little data have been published to date. The main study on the assessment tool only provided data on the association between EXIS.pers scores and sociodemographic variables, thus giving little support for the scale's validity (Hunger et al., 2017). From an earlier, brief description of the scale (Hunger, 2015), it is also known that scores on the instrument showed a significant, strong correlation with measures of social support (Perceived Social Support Questionnaire, F-SozU) and general psychopathology (Outcome Questionnaire, OQ-45), providing some support to the convergent and divergent validity of the assessment tool.

Since the instrument's publication, the EXIS.pers has already been used in several studies published by the main test developer's team. The first one consisted of a randomized controlled trial exploring the efficacy of family constellation seminars, in which the EXIS.pers operationalized one of the primary outcomes. The scale was used both in the short- (Hunger, Bornhäuser, Link, et al., 2014; Weinhold et al., 2013) and long-term (Hunger-Schoppe, 2020; Hunger et al., 2015) follow-up of participants and data with its use indicated stable positive changes in social functioning up until five years after the intervention. In these studies, the EXIS.pers invariably displayed excellent internal consistency (Cronbach's alpha  $\approx$  .90).

In a psychometric study (Hunger et al., 2016), the EXIS.pers was used to investigate the construct validity of the Burden Assessment Scale (BAS), German version, which is a measurement tool designed to assess the level of burden experienced by relatives who care for mentally ill patients. The authors found that BAS scores

negatively predicted a statistically significant portion of relatives' experiences in their social systems measured by the EXIS.pers. Meanwhile, BAS scores have also negatively predicted incidents of relatives' experiences in their workplace community assessed by the organization-specific version of the EXIS (EXIS.org). In this study as well, the total score of the EXIS.pers could be characterized by excellent internal consistency (Cronbach's  $\alpha = .94$ ).

In a further study on the mediating role of family functioning and personality traits regarding the relationship between attachment style and eating disorders, the EXIS.pers was deployed to measure the quality of social functioning within the family (Münch et al., 2016). Here, a Cronbach's  $\alpha$  of .97 was observed and the results indicated significantly lower EXIS.pers scores in the eating disorder group compared to the control group. Furthermore, EXIS.pers scores partially mediated the association between attachment style and eating disorder status.

Finally, in a recent study comparing the efficacy of cognitive behavioral therapy and systemic therapy in reducing the symptoms of social anxiety disorder (Hunger et al., 2020), the EXIS.pers was used as a secondary outcome to measure the participants' social functioning level. In this study again, internal consistency of the EXIS.pers total score stood very high (Cronbach's  $\alpha$  of .94–.96, depending on the assessment point). The results showed that participants in both treatment conditions improved significantly according to the EXIS.pers, with a wide range of effect sizes across groups (Cohen's  $d$ : 0.23–1.06), indicating that the scale can be characterized by good sensitivity to change.

The above summary shows that the EXIS.pers has been used in several studies in the short time that has elapsed since its publication. The data accumulated to date is mostly based on the German-language version of the scale, with the exception of the main psychometric study on the scale using an English-language adaptation, as well. While the internal consistency of the total scale score has consistently been reported as excellent, we know little about the scale's validity and reliability assessed by more advanced indicators than Cronbach's  $\alpha$  (e.g.,  $\omega$ ). The present study's aim, therefore, was twofold. Our first goal was to describe the adaptation process of the instrument's Hungarian translation (which, to the best of our knowledge, represents the first language adaptation developed independently of the original authors) and investigate its basic psychometric characteristics (factor structure, temporal stability, and internal consistency). In our second goal, we intended to provide further data in relation to the instrument's psychometric characteristics regarding aspects never investigated before (measurement invariance across sex and time, convergent and divergent validity in terms of additional positive, and negative mental health indicators).

## Methods

### Sample and procedure

This study's protocol has been approved by the Research Ethics Board of Károli Gáspár University of the Reformed Church in Hungary (25/2017/P). We recruited the present study's participants from the general population for the purposes of a preregistered effectiveness study (<https://clinicaltrials.gov/ct2/show/NCT03233958>) to examine the effects of a brief group therapy intervention to improve general psychological functioning and quality of life. All respondents were intervention participants: the study did not include control subjects. After the baseline assessment (T1), participants were followed-up at one- (T2) and six months (T3) post-intervention. The present study's data set consisted of 400 completed questionnaires from 182 individual participants (Table 1). Participation was voluntary, and after participants gave their informed, written consent, they could choose whether to complete the questionnaires online or in hard copy. Most often, married women with postgraduate education comprised the participants (Table 1).

### Measures

#### *Sociodemographic variables*

To assess sociodemographic characteristics, we administered questions pertaining to the participants' sex, age, relationships/marital status, and educational attainments (Table 1 displays response options).

Table 1. Sociodemographic Characteristics of the Study Sample

	T1	T2	T3
N	182	118	100
Sex (N, %)			
Male	30 (16.5)	18 (15.3)	17 (17.0)
Female	152 (83.5)	100 (84.7)	83 (83.0)
Age (M, SD)	39.9 (9.5)	39.7 (9.2)	39.7 (9.1)
Educational level (N, %)			
Secondary	37 (20.3)	30 (25.4)	26 (26.0)
Postsecondary	145 (79.7)	88 (74.6)	74 (74.0)
Marital status (N, %)			
Single	56 (30.8)	35 (29.7)	30 (30.0)
In relationship without cohabiting	26 (14.3)	18 (15.3)	14 (14.0)
Married / common law	73 (40.1)	47 (39.8)	40 (40.0)
Separated / divorced	27 (14.8)	18 (15.3)	16 (16.0)

### *Experience in Personal Social Systems Questionnaire (EXIS.pers)*

Hunger et al. developed the EXIS.pers in order to assess the status and potential changes involving subjective experiences in the individual's personal social system(s) (Hunger, 2015; Hunger, Bornhäuser, Weinhold, et al., 2014). Two versions of the EXIS questionnaire have been developed: (1) the EXIS.pers measures experiences in an individual's personal social system (e.g., family, circle of friends), while (2) the EXIS.org assesses experiences in an organizational context (e.g., workplace). The two versions differ only in the instructions given to participants, but in the present paper's empirical section, we exclusively focus on the EXIS.pers.

As the questionnaire's original publication included information on both the German and English language versions of the tool, as well as data regarding their psychometric characteristics (Hunger et al., 2017), the present authorial team decided to primarily rely on the English language version during the translation process due to an easier access to competent translators in that language. Accordingly, two independent translators with backgrounds in clinical / health / counseling psychology translated the questionnaire's English language version into Hungarian. Then, further two independent translators back-translated the consensual version into English. As the review of the back-translations revealed inconsistencies regarding Item #8, the author team this time considered the German-language version of the questionnaire (by consulting two additional independent experts fluent both in German and Hungarian) and revised the item's Hungarian wording accordingly. The final version of the Hungarian EXIS.pers can be found in the [Appendix](#) of the present article.

### *Brief Symptom Inventory (BSI)*

The BSI (Derogatis & Spencer, 1993) serves as an economic way to measure an individual's overall psychopathology and distress level; it is a brief form of the SCL-90-R (Derogatis, 1977). The BSI consists of 53 items pertaining to the following nine symptom dimensions of the SCL-90-R: (1) Somatization, (2) Obsessive-compulsive symptoms, (3) Interpersonal sensitivity, (4) Depression, (5) Anxiety, (6) Hostility, (7) Phobic anxiety, (8) Paranoid ideation, and (9) Psychoticism. Out of the three global measures of pathology and distress, we used the General Severity Index (GSI, mean of all items) in the present study. According to this indicator, our sample ( $M = 0.82$ ,  $SD = 0.51$ ) fell between the norms of the general population ( $M = 0.30$ ,  $SD = 0.31$ ) and psychiatric outpatients ( $M = 1.32$ ,  $SD = 0.072$ ) according to the standards published by the instrument's developers (Derogatis & Melisaratos, 1983). The questionnaire items can be answered on a Likert-type scale ranging from 0 ("Not at all") to 4 ("Extremely"). Urbán et al. (2014) psychometrically investigated the questionnaire's Hungarian version. BSI subscales' internal consistency in the present sample ranged from suboptimal (Phobic Anxiety:  $\alpha = 0.562$ ) through good (Somatization:  $\alpha = 0.776$ ; Obsession-compulsion:  $\alpha = 0.746$ ; Interpersonal sensitivity:  $\alpha = 0.755$ ; Anxiety:  $\alpha = 0.734$ ; Hostility:  $\alpha = 0.756$ ; Paranoid ideation:  $\alpha = 0.744$ ; Psychoticism:  $\alpha = 0.727$ ) to excellent (Depression:  $\alpha = 0.857$ ; General Severity Index:  $\alpha = 0.953$ ).

### SCOFF

The Hungarian version (Dukay-Szabó et al., 2016) of the SCOFF screening test (Morgan et al., 2000) was used to measure non-disorder-specific risk level for eating disorders. This assessment tool consists of five yes-or-no type questions assessing eating disorders symptoms. At least two positive answers indicate a high likelihood of an eating disorder [100% sensitivity and 85% specificity characterized this cut-off in a clinical sample, while 50% sensitivity and 87.62% specificity was registered in a subclinical sample (Dukay-Szabó et al., 2016)]. In the present study, the Cronbach's alpha coefficient for the SCOFF was .558.

### Patient Health Questionnaire-15 (PHQ-15)

The Hungarian version (Stauder et al., 2021) of the PHQ-15 (Kroenke et al., 2002) was used to evaluate the intrusiveness of somatic symptoms and a tendency toward somatization. The assessment tool contains 15 items, each addressing a somatic symptom referring to various frequently occurring mild symptoms, such as back pain or trouble sleeping. Respondents could answer on a Likert-type scale ranging from 0 ("Not bothered at all") to 2 ("Bothered a lot"). Internal consistency of PHQ-15 was good in the present sample ( $\alpha = 0.757$ ).

### Meaning in Life Questionnaire (MLQ)

The MLQ was developed by Steger et al. (2006) to assess *presence of meaning* and *search for meaning* in the respondent's life (Steger et al., 2006). The scale consists of 10 items (five items measuring both subconstructs) scored on a 7-point Likert scale ranging from 1 ("Absolutely untrue") to 7 ("Absolutely true"). Martos and Konkoly Thege developed and validated the Hungarian version (MLQ-H) used in the present study, which showed excellent psychometric properties (Martos & Konkoly Thege, 2012). Both the *Presence* ( $\alpha = 0.923$ ) and the *Search* ( $\alpha = 0.855$ ) subscales displayed a very high internal consistency in the present sample.

### WHO Well-being Index (WBI-5)

The Hungarian, five-item version of the WHO Well-being Index (Bech et al., 1996) was used to measure participants' overall subjective well-being. Respondents could rate their level of agreement on a 4-point Likert-type scale ranging from 0 ("Not at all true") to 3 ("Absolutely true"). The Hungarian adaptation has been developed and psychometrically investigated by Susánszky et al. (2006). Internal consistency of the scale proved to be excellent in the present study ( $\alpha = 0.88$ ).

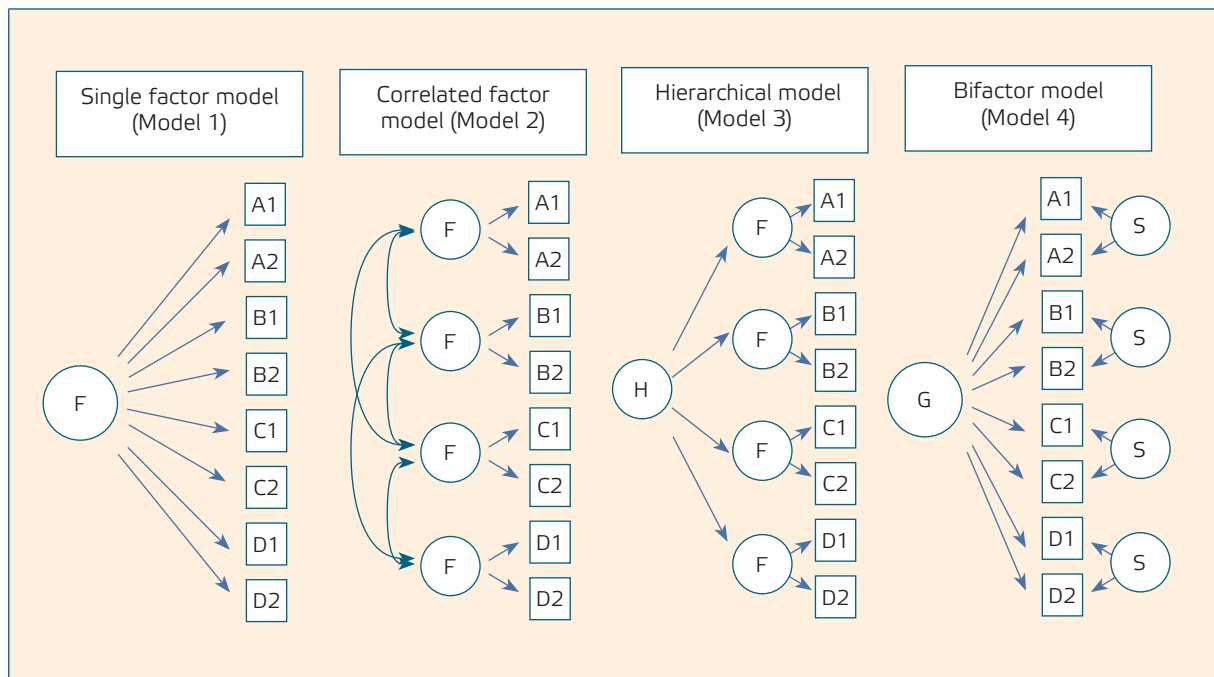
### Statistical analyses

In order to identify the factor structure that best fits the data, a series of confirmatory factor analyses were performed on the T1 sample using the Mplus 7.1 software (semantic representation of the competing models is displayed on Figure 1). The data set did not contain missing values, and considering the very close to normal distribution of the EXIS.pers item scores (skewness  $<|0.5|$ ), the maximum likelihood estimation was used. Model 1 consisted of a single-factor solution with one general factor responsible for all 12 item responses. Model 2 consisted of a four-factor solution representing four correlating contributing factors of the questionnaire: Belonging, Autonomy, Accord, and Confidence. Model 3 comprised of a slightly revised form of Model 2 where, in addition to the four first-order factors, a second-order global factor was also incorporated.

In addition to the previous three traditional models, the appropriateness of a bifactor model (Model 4) was also tested. This latter kind of model allows for separating the role of the general and domain-specific factors as – contrary to traditional second-order models – it allows all items to load directly onto a general and a domain-specific factor *simultaneously*. Studies suggest that this measurement structure may be a more effective approach to model construct-relevant multidimensionality (Brunner et al., 2012; Reise et al., 2010; Reise et al., 2012) and can inform test users, for instance, whether subscale scores can be used in a meaningful way over and above the total score when predicting external variables.

Model fit was evaluated based on the 1) chi-square test [non-significant results indicate an adequate fit; however, this indicator is not particularly reliable with larger samples; cf. (Marsh et al., 2004)]; 2) Tucker-Lewis and Comparative Fit Indexes (TLI and CFI, respectively; values between 0.90 and 0.95 indicate an acceptable fit while values greater than 0.95 suggest good fit); 3) root mean square error of approximation (RMSEA; values

Figure 1. Sematic Graphical Representation of the Competing Factor Structure Models



Note: A1-A2, B1-B2, C1-C2, D1-D2 = items; F = first-order factor; H = higher/second-order factor; S = specific factor in a bifactor model; G = global factor in a bifactor model.

below 0.08 indicate an acceptable fit, while values below 0.05 show a good fit); and 4) standardized root mean square residual (SRMR; values less than 0.08 indicate an appropriate fit) (Hu & Bentler, 1999). Finally, Bayesian information criteria were also reported, which do not have a clear cut-off; lower values mean a better fit when comparing alternative models (Hooper et al., 2008).

Internal consistency was evaluated by calculating Cronbach's alpha, omega total, and omega hierarchical coefficients (Zinbarg et al., 2005) for both the whole instrument and its dimensions according to the best-fitting model. Omega total estimates the reliability of a latent factor combining the general and specific factor variance, while omega hierarchical estimates the reliability of a latent factor with all other latent construct variance removed (Brunner et al., 2012) – thus providing useful information on whether scores for a specific factor can be interpreted with confidence or only the total score (general factor score) should be used. Both kinds of omega coefficients were calculated using the Omega software (Watkins, 2013).

Measurement invariance of the final model across sex (male or female) and time (Time 1, Time 2, or Time 3) has also been tested on the combined sample from all three data points ( $N = 400$ ) by comparing models representing 1) configural invariance (same factor structure imposed across groups); 2) metric invariance (configural invariance + factor loadings and intercepts are constrained to be equal across groups); and 3) scalar invariance (metric invariance + latent means are constrained to be equal across groups). When comparing the nested models forming the sequence of invariance tests, guidelines for samples with adequate sample size ( $N \geq 300$ ) were considered suggesting that models can be seen as providing a similar degree of fit as long as changes in CFI remain under .010 and alterations in RMSEA remain under .015 between a less and a more restrictive model (Chen, 2007).

Convergent and divergent validity of the EXIS.pers' Hungarian version was evaluated on the T1 sample ( $N = 182$ ) by examining the relationship between the total scale score and the indicators of psychopathology (Global Severity Index and all subscale scores of the BSI, SCOFF, and PHQ-15), overall well-being (WBI-5), as well as presence and search for meaning in life (MLQ).

The relationship between the EXIS.pers scores and categorical variables was evaluated using independent-samples t-tests (sex, educational attainment), and one-way analysis of variance (marital status), while those with continuous variables (age, indicators of psychopathology, well-being, and meaning in life) were investigated – due to their strong deviation from the normal distribution – using Spearman correlation coefficients. Finally, the current and international EXIS.pers total scores were compared using a set of one-sample t-tests. All descriptive and bivariate analyses were carried out using the SPSS 28.0 software.

## Results

### Factor structure, internal consistency, and item analysis

The factor structure of the 12-item, Hungarian version of the EXIS.pers was investigated by a series of confirmatory factor analyses. Model 1 resulted in suboptimal model fit indices according to all fit indicators (Table 2). Models 2 and 3 produced acceptable (TLI) or good (CFI, SRMR) fit indices according to most goodness of fit indicators. The best-fitting model, however, proved to be the bifactor model (Model 4), the fit of which stood significantly better than any of the other three models (Table 2); however, the differences in fit indices between Model 4 versus Models 2 and 3 were trivial. For the best-fitting bifactor model, all factor loadings were significant and the standardized factor loadings for the items ranged between 0.49 and 0.75 in relation to the global factor and between 0.33 and 0.76 in relation to the domain-specific factors (Table 3).

Results of the analyses regarding measurement invariance showed that adding invariance constraints on the

**Table 2.** Model Fit Indices for the Competing Confirmatory Factor Analytic Models of the Hungarian Version of the EXIS.pers

	$\chi^2, p$	TLI	CFI	RMSEA (90% CI)	SRMR	SSA BIC	Difference from Model 4
Model 1 - Single factor	575.1, $p < .001$	.572	.650	.230 (.213-.247)	.113	6,471.2	$\chi^2=477.1$ , $p < .001$
Model 2 - Four first-order, correlating factors	111.4, $p < .001$	.941	.957	.085 (.065-.106)	.043	6,019.7	$\chi^2=13.4$ , $p=.037$
Model 3 - Four first-order factors with a second-order factor	123.7, $p < .001$	.935	.950	.090 (.070-.110)	.056	6,027.9	$\chi^2=25.7$ , $p=.001$
Model 4 - Bifactor model	98.0, $p < .001$	.941	.962	.086 (.064-.108)	.046	6,018.5	N/A

TLI: Tucker-Lewis Index, CFI: Comparative Fit Index, RMSEA: Root Mean Square Error of Approximation, SRMR: Standardized Root Mean Square Residual, SSA BIC: Sample-Size Adjusted Bayesian Information Criterion.

**Table 3.** Item Characteristics of the Hungarian EXIS.pers from the Item- and Confirmatory Factor Analysis (bifactor model, N=182)

Item	M	SD	Item-total correlation	Standardized factor loadings (standard error) from the factor analysis				
				Global Factor	Belonging	Autonomy	Accord	Confidence
1	3.38	1.29	.683	.715 (.049)	.543 (.074)			
2	3.20	1.26	.678	.688 (.052)	.450 (.077)			
3	3.79	1.31	.694	.754 (.045)	.440 (.072)			
4	4.03	1.49	.684	.724 (.051)		.376 (.089)		
5	4.05	1.33	.716	.752 (.049)		.712 (.091)		
6	4.19	1.23	.697	.739 (.048)		.325 (.085)		
7	3.70	1.24	.655	.645 (.056)			.398 (.074)	
8	3.77	1.24	.626	.592 (.060)			.504 (.077)	
9	3.65	1.29	.579	.524 (.065)			.763 (.081)	
10	4.09	1.36	.585	.503 (.066)				.679 (.057)
11	4.27	1.33	.656	.580 (.059)				.676 (.057)
12	3.98	1.40	.553	.485 (.067)				.581 (.060)

Note. All factor loadings and item-total correlation coefficients significant at  $p < .001$ .

factor structure did not cause a decrease in model fit larger than the recommended cut-off scores for changes in fit indices ( $\Delta\text{CFI} = 0.007$ ,  $\Delta\text{RMSEA} = 0.011$ ), suggesting configural invariance across sex. The same stayed true when adding further invariance constraints on factor loadings and intercepts ( $\Delta\text{CFI} = 0.006$ ,  $\Delta\text{RMSEA} = 0.002$ ), and finally on latent means ( $\Delta\text{CFI} = 0.007$ ,  $\Delta\text{RMSEA} < 0.001$ ). Similar data emerged regarding measurement invariance across assessment points: adding invariance constraints on the factor structure ( $\Delta\text{CFI} = 0.004$ ,  $\Delta\text{RMSEA} = 0.007$ ), factor loadings and intercepts ( $\Delta\text{CFI} = .007$ ,  $\Delta\text{RMSEA} = 0.002$ ), and latent means ( $\Delta\text{CFI} = 0.008$ ,  $\Delta\text{RMSEA} = 0.001$ ) did not cause a significant decrease in model fit, suggesting scalar invariance across assessment points as well.

### Internal consistency and test-retest reliability

Cronbach's alpha values were very good ( $> .84$ ) regarding both the total and the subscale scores (Table 4). The omega total coefficients ( $\geq .86$ ), based on the bifactor model, indicated similarly outstanding internal consistency (Table 4). Omega hierarchical coefficients – estimating reliabilities with the effects of all other factors removed – stood high for the total score and ranged between .27 and .53 for the domain-specific factors. Data concerning variances showed a very similar pattern: while the general factor accounted for 57.8% of the common variance, the specific factors accounted for 7.9 – 14.3% of the common variance (Table 4). Intercorrelations (all  $ps < .001$ ) between the total and the subscale scores ranged between .76 (Confidence) and .83 (Autonomy), while those among the subscales ranged between .43 (Belonging – Confidence) and .66 (Belonging – Autonomy).

The temporal stability of the Hungarian adaptation was good; the test-retest analysis revealed a strong correlation coefficient ( $r_{1\text{-month}} = .64$ ,  $p < .001$ ,  $r_{5\text{-month}} = .71$ ,  $p < .001$ ) between the total scores across the measurement occasions (Table 4). The same test-retest reliability coefficients for the subscales stood slightly lower and ranged from .50 to .63 for the one-month reassessment (all  $ps < .001$ ), and .59-.74 for the five-month re-assessment (all  $ps < .001$ ), still indicating good temporal reliability.

### Convergent- and divergent-validity and international comparison of descriptive data

EXIS.pers total scores were significantly (all  $ps \leq .001$ ) and inversely associated with all indicators of negative mental health ( $r_{\text{BSI/Global symptom severity}} = -.62$ ,  $r_{\text{BSI/Somatization}} = -.42$ ,  $r_{\text{BSI/Obsession-Compulsion}} = -.43$ ,  $r_{\text{BSI/Interpersonal sensitivity}} = -.47$ ,  $r_{\text{BSI/Depression}} = -.52$ ,  $r_{\text{BSI/Anxiety}} = -.59$ ,  $r_{\text{BSI/Hostility}} = -.49$ ,  $r_{\text{BSI/Phobic anxiety}} = .38$ ,  $r_{\text{BSI/Paranoid ideation}} = -.51$ ,  $r_{\text{BSI/Psychoticism}} = -.53$ ,  $r_{\text{Eating disorders(SCOFF)}} = -.28$ ,  $r_{\text{Somatization (PHQ)}} = -.44$ ,  $r_{\text{Search for meaning (MLQ)}} = -.19$ ). In contrast, EXIS.pers total scores

**Table 4.** Descriptive and Reliability Characteristics of the Hungarian Version of the EXIS.pers and its Domains (N = 182)

	<i>M</i>	<i>SD</i>	Skewness (SE)	Kurtosis (SE)	Cronbach's Alpha	Common variance	Omega total	Omega hierarchical	1-month test-retest correlation (N=118¥)	5-months test-retest correlation (N=100 ¥¥)
Belonging	3.46	1.17	-0.25 (0.18)	-0.01 (0.36)	0.90	0.079	0.899	0.275	$r = .50$ , $p < .001$	$r = .74$ , $p < .001$
Autonomy	4.09	1.23	-0.15 (0.18)	-0.69 (0.36)	0.90	0.086	0.919	0.266	$r = .63$ , $p < .001$	$r = .61$ , $p < .001$
Accord	3.71	1.10	-0.04 (0.18)	-0.30 (0.36)	0.84	0.114	0.859	0.405	$r = .55$ , $p < .001$	$r = .66$ , $p < .001$
Confidence	4.12	1.22	-0.29 (0.18)	-0.62 (0.36)	0.87	0.143	0.871	0.526	$r = .56$ , $p < .001$	$r = .59$ , $p < .001$
Total score	3.84	0.94	-0.18 (0.18)	-0.34 (0.36)	0.91	0.578	0.956	0.811	$r = .64$ , $p < .001$	$r = .71$ , $p < .001$

¥ Data are from an effectiveness study where the intervention occurred between the two assessments (baseline vs. post-intervention);

¥¥ Data are from the follow-up period of the same effectiveness study without intervention occurring between the two assessments (post-intervention vs. follow-up).



showed a significant (both  $ps < .001$ ), moderate or strong, positive association with both indicators of positive mental health ( $r_{\text{Presence of life meaning (MLQ)}} = .52$ ,  $r_{\text{General well-being (WBI)}} = .66$ ).

Descriptive statistics for the total and subscale scores are displayed in Table 4. No statistically significant association existed between the EXIS.pers total scores and sex ( $M_{\text{females}} = 3.99$ ,  $SD_{\text{females}} = 1.07$ ;  $M_{\text{males}} = 4.25$ ,  $SD_{\text{males}} = 0.95$ ;  $t = 1.81$ ,  $p = .072$ ,  $d = 0.25$ ), age ( $r = -.05$ ,  $p = .321$ ), and marital status ( $M_{\text{single}} = 4.09$ ,  $SD_{\text{single}} = 1.12$ ;  $M_{\text{relationship}} = 3.86$ ,  $SD_{\text{relationship}} = 0.97$ ;  $M_{\text{cohabiting}} = 4.14$ ,  $SD_{\text{cohabiting}} = 1.01$ ;  $M_{\text{separated}} = 3.80$ ,  $SD_{\text{separated}} = 1.09$ ;  $F = 2.15$ ,  $p = .094$ ,  $\eta^2 = 0.02$ ). Regarding educational attainment, though, those having postsecondary education ( $M = 3.95$ ,  $SD = 1.03$ ) showed significantly lower EXIS.pers total scores ( $t = 2.95$ ,  $p = .003$ ,  $d = 0.35$ ) than those having only a secondary education ( $M = 4.31$ ,  $SD = 1.08$ ).

Comparisons with the international data indicated that almost all subscale and total scores stood significantly lower in the current sample ( $p$  values ranging from  $< .001$  to  $.005$ ) than the scores in the German or UK samples published by the test-developers (Hunger et al., 2017). The only exception involved the Confidence subscale, which did not show a significant difference ( $p = .088$ ) from the scores reported for the sample from Germany.

## Discussion

This study had a two-fold aim: 1) to describe the adaptation process of the EXIS.pers, Hungarian version, and examine its psychometric characteristics, and 2) to provide further psychometric data on issues never investigated before regarding this psychological assessment tool developed only a few years ago (i.e., measurement invariance across sex and time and investigation of reliability via methods more sophisticated than the calculation of Cronbach's alpha). It is also worthy of note that, to the best of our knowledge, this constitutes the first study on the EXIS.pers not conducted by the questionnaire's original authors, thus providing further independent data on the psychometric properties of this assessment tool.

Similarly to the original test developers' results (Hunger et al., 2017), a bifactor structure of the Hungarian EXIS.pers version fit the data best; however, even a correlated-first-order-factors model and a second-order model showed a good fit. In line with extant published data, the internal reliability of both the subscale and total scores stood excellent according to the traditional indicator of Cronbach's alpha. The questionnaire's test-retest reliability was appropriate considering the time-lag applied; however, these coefficients registered somewhat lower than those reported for the original, German-language version (Hunger, 2015). It is worthy of note, though, that temporal reliability data from Germany were based on assessments conducted with different time lags (two and four weeks), reliability indicators (Norman's  $S_{2\text{week}}$ : 0.78–0.92; Norman's  $S_{4\text{month}}$ : 0.71–0.85), and study design (repeated assessments without an intervention occurring between assessment points).

The present findings confirming the instrument's convergent and divergent validity were also similar to those of the original test developers' results (Hunger, 2015): total scores on the EXIS.pers' Hungarian version indicated moderate or strong negative associations with the different indicators of psychopathology. The only exception involved the eating disorder indicator (not yet investigated in the literature); however, the very narrow range of the SCOFF (0–5) might also have contributed to the less strong but still statistically significant association between this psychopathology indicator and the EXIS.pers scores. In addition, we also found indicators of positive mental health to be related with EXIS.pers scores, in accordance with our theoretical assumption that a higher level of satisfaction regarding one's functioning in their narrower social environment is closely related to their overall well-being and perceived level of meaning in life (Debats, 1999).

The comparisons of the data resulting from the questionnaire's administration in Germany, Hungary, and the United Kingdom indicated that mean scores in the current Hungarian sample registered generally lower than in the two Western European countries. Considering the low sample size and unrepresentative nature of the samples, we cannot draw firm conclusions regarding these between-country differences; however, they stand in line with other surveys indicating long-lasting trends of lower happiness levels in Hungary across many indicators compared to Western democracies (Róbert, 2019). A parallel finding of this study is that those with higher educational attainment reported slightly poorer experiences in their personal social systems than their less educated counterparts. While this finding looks somewhat counterintuitive, considering the generally low acceptance and accessibility of psychotherapeutic interventions in Hungary, it is likely that participants with lower educational attainment in this sample represented a very special segment of this social stratum (cf. the sample of the current study was recruited among attendees of a group psychotherapy intervention who paid for the service).

## Strengths and Limitations

A significant contribution of the present study to the international literature – beyond describing the Hungarian adaptation – is the investigation of factorial invariance of the EXIS.pers. The results confirmed the scalar invariance of the best-fitting bifactor model both across sex and time, indicating that the questionnaire can be used with confidence when investigating or comparing males and females or in studies with repeated-measures designs.

Limitations of the present study also need to be acknowledged. First of all, the sampling method only reached a relatively small number of individuals who are unique in many ways (participating in a psychotherapeutic intervention on a fee-for-service basis). The low number of male participants and the overrepresentation of highly educated respondents reflected this sample's unrepresentativeness; therefore, the generalizability involving some of the findings is questionable. Second, even though the adaptation process into Hungarian employed multiple translators, back-translations, and the consideration of two resource languages (English and German), the procedure did not satisfy all criteria developed to support the highest quality of cultural adaptation (Gudmundsson, 2009). Third, the analyses were based on data from an effectiveness study, that is, an intervention – assumed to influence the construct measured by the EXIS.pers – occurred between the first and second assessment points. As a result, our findings most likely underestimate the one-month temporal reliability of the EXIS.pers' Hungarian version, which is supported by the unusual fact that the five-month test-retest coefficients registered higher in this study than the one-month estimates. Fourth, the analyses on sex invariance were completed using the pooled data set of T1, T2, and T3 data, treating repeated-measures data as independent. The alternative, though, would have been to test sex invariance on the largest (T1) sample only, in which case the number of males would have been merely 30, making the analyses for a 12-item questionnaire unreliable (Harrington, 2008). Finally, some of the measures used to investigate the construct validity of the EXIS.pers (Phobic anxiety domain of the BSI and the SCOFF) could be characterized as having a suboptimally low internal consistency; therefore, results obtained through deploying these measures should be interpreted with caution.

## Conclusion, Implications and Future Directions

Despite the above limitations, the present study's overall results suggest that the Hungarian version of the EXIS.pers is an appropriate adaptation of the assessment tool's original version; thus, it can serve as a reliable and valid measure to assess an individual's subjective experiences within his or her individually defined personal social system. It is recommended that authors of future efficacy and effectiveness studies of psychosocial interventions consider the inclusion of this measure into their assessment battery.

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### Author contributions

Barna Konkoly Thege: conceptualization, design, methodology, project administration, formal analysis, interpretation, supervision, writing original draft, writing review and editing.

Benedek Somogyi: investigation, data management, writing original draft.

Gergely Sándor Szabó: conceptualization, design, methodology, funding acquisition, investigation, project administration, data management, supervision, writing review and editing.

All authors gave final approval of the version to be published and agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

### Declaration of interest statement

The authors have no conflicts of interest to disclose.

### Ethical statement

This manuscript is the authors' original work.

The study was reviewed and approved by the Research Ethics Board of Károli Gáspár University of the Reformed Church in Hungary, Budapest, Hungary, license number: 25/2017/P

All participants participated in the research voluntarily, and provided their written informed consent to participate in this study.

Data are stored in coded materials and databases without personal data, and the authors have policies in place to manage and keep data secure.

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## References

- Bech, P., Gudex, C., & Staehr Johansen, K. (1996). The WHO (Ten) Well-Being Index: Validation in diabetes. *Psychotherapy and Psychosomatics*, 65(4), 183–190.  
<https://doi.org/10.1159/000289073>
- Brunner, M., Nagy, G., & Wilhelm, O. (2012). A tutorial on hierarchically structured constructs. *Journal of Personality*, 80(4), 796–846.  
<https://doi.org/10.1111/j.1467-6494.2011.00749.x>
- Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling*, 14(3), 464–504.  
<https://doi.org/10.1080/10705510701301834>
- Debats, D. L. (1999). Sources of meaning: An investigation of significant commitments in life. *Journal of Humanistic Psychology*, 39(4), 30–57.  
<https://doi.org/10.1177/0022167899394003>
- Derogatis, L. R. (1977). *SCL-90R (revised version) manual I*. School of Medicine, Johns Hopkins University.
- Derogatis, L. R., & Melisaratos, N. (1983). The Brief Symptom Inventory: An introductory report. *Psychological Medicine*, 13(3), 595–605.  
<https://doi.org/10.1017/S0033291700048017>
- Derogatis, L. R., & Spencer, P. (1993). *Brief symptom inventory: BSI* (Vol. 18). Pearson.
- Dukay-Szabó, S., Simon, D., Varga, M., Szabó, P., Túry, F., & Rathner, G. (2016). Egy rövid evészavar-kérdőív (SCOFF) magyar adaptációja [Hungarian adaptation of a short eating disorders scale (SCOFF)]. *Ideggyógyászati Szemle*, 69(3–4), E014–E020.  
<https://doi.org/10.18071/isz.69.E014>
- Gudmundsson, E. (2009). Guidelines for translating and adapting psychological instruments. *Nordic Psychology*, 61(2), 29–45.  
<https://doi.org/10.1027/1901-2276.61.2.29>
- Harrington, D. (2008). Requirements for conducting confirmatory factor analysis. In D. Harrington (Ed.), *Confirmatory factor analysis*. Oxford Scholarship Online.  
<https://doi.org/10.1093/acprof:oso/9780195339888.003.0003>
- Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods*, 6(1), 53–60.
- Hu, L.-t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55.  
<https://doi.org/10.1080/10705519909540118>
- Hunger, C. (2015). EXIS: Erleben in Sozialen Systemen [EXIS: Experience in Social Systems]. In E. Brähler, M. Zenger, & C. J. Kemper (Eds.), *Psychologische und sozialwissenschaftliche Kurzskaalen: standardisierte Erhebungsinstrumente für Wissenschaft und Praxis* (pp. 78–81). Medizinisch Wissenschaftliche Verlagsgesellschaft.
- Hunger-Schoppe, C. (2020). Familienaufstellung als Einzelintervention im Gruppensetting bei chronisch-psycho sozialen Konflikten: Kurz-, mittel- und langfristige Wirksamkeit [Family constellations as single intervention within the group setting in chronic psychosocial conflicts: short-, medium-, and long-term efficacy]. *Zeitschrift für Psychiatrie, Psychologie und Psychotherapie*, 68(4), 263–273.  
<https://doi.org/10.1024/1661-4747/a000424>
- Hunger, C., Bornhäuser, A., Link, L., Geigges, J., Voss, A., Weinhold, J., & Schweitzer, J. (2017). The Experience in Personal Social Systems Questionnaire (EXIS.pers): Development and psychometric properties. *Family Process*, 56(1), 154–170.  
<https://doi.org/10.1111/famp.12205>
- Hunger, C., Bornhäuser, A., Link, L., Schweitzer, J., & Weinhold, J. (2014). Improving experience in personal social systems through family constellation seminars: Results of a randomized controlled trial. *Family Process*, 53(2), 288–306.  
<https://doi.org/10.1111/famp.12051>
- Hunger, C., Bornhäuser, A., Weinhold, J., & Schweitzer, J. (2014). Erleben in sozialen Systemen. Kurzvorstellung eines neuen Fragebogens und Darstellung seiner Ergebnisse in der Heidelberger RCT-Studie zur Wirksamkeit von Systemaufstellungen [Experience in social systems. Outline of a new questionnaire and discussion of the results obtained with it in the Heidelberg RCT study on the efficacy of systems constel-

- lations]. *Familiendynamik*, 39(4), 316–325.
- Hunger, C., Hilzinger, R., Klewinghaus, L., Deusser, L., Sander, A., Mander, J., Bents, H., Ditzen, B., & Schweitzer, J. (2020). Comparing cognitive behavioral therapy and systemic therapy for social anxiety disorder: Randomized controlled pilot trial (SOPHO-CBT/ST). *Family Process*, 59(4), 1389–1406.  
<https://doi.org/10.1111/famp.12492>
- Hunger, C., Krause, L., Hilzinger, R., Ditzen, B., & Schweitzer, J. (2016). When significant others suffer: German validation of the Burden Assessment Scale (BAS). *PLOS ONE*, 11(10), e0163101.  
<https://doi.org/10.1371/journal.pone.0163101>
- Hunger, C., Weinhold, J., Bornhäuser, A., Link, L., & Schweitzer, J. (2015). Mid- and long-term effects of family constellation seminars in a general population sample: 8- and 12-month follow-up. *Family Process*, 54(2), 344–358.  
<https://doi.org/10.1111/famp.12102>
- Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2002). The PHQ-15: Validity of a new measure for evaluating the severity of somatic symptoms. *Psychosomatic Medicine*, 64(2), 258–266.  
<https://doi.org/10.1097/00006842-200203000-00008>
- Marsh, H. W., Wen, Z., & Hau, K.-T. (2004). Structural equation models of latent interactions: Evaluation of alternative estimation strategies and indicator construction. *Psychological Methods*, 9(3), 275–300.  
<https://doi.org/10.1037/1082-989X.9.3.275>
- Martos, T., & Konkoly Thege, B. (2012). Aki keres, és aki talál – az élet értelmessége keresésének és megélésének mérése az Élet Értelme Kérdőív magyar változatával [Those who search and those who find – Assessing the presence of and search for meaning in life with the Hungarian version of the Meaning in Life Questionnaire]. *Magyar Pszichológiai Szemle*, 67(1), 125–149.  
<https://doi.org/10.1556/mpszle.67.2012.1.8>
- Morgan, J. F., Reid, F., & Lacey, J. H. (2000). The SCOFF questionnaire: a new screening tool for eating disorders. *Western Journal of Medicine*, 172(3), 164–165.  
<https://doi.org/10.1136/ewjm.172.3.164>
- Münch, A. L., Hunger, C., & Schweitzer, J. (2016). An investigation of the mediating role of personality and family functioning in the association between attachment styles and eating disorder status. *BMC Psychology*, 4, 36.  
<https://doi.org/10.1186/s40359-016-0141-4>
- Reise, S. P., Moore, T. M., & Haviland, M. G. (2010). Bifactor models and rotations: Exploring the extent to which multidimensional data yield univocal scale scores. *Journal of Personality Assessment*, 92(6), 544–559.  
<https://doi.org/10.1080/00223891.2010.496477>
- Reise, S. P., Scheines, R., Widaman, K. F., & Haviland, M. G. (2012). Multidimensionality and structural coefficient bias in structural equation modeling: A bifactor perspective. *Educational and Psychological Measurement*, 73(1), 5–26.  
<https://doi.org/10.1177/0013164412449831>
- Róbert, P. (2019). The role of demographic and socio-economic characteristics in affecting subjective well-being. The case of Hungary. *Studies of Transition States and Societies*, 11(2), 3–22. <https://www.ssoar.info/ssoar/handle/document/69173>
- Stauder, A., Witthöft, M., & Köteles, F. (2021). Validation of the Hungarian PHQ-15. A latent variable approach. *Ideggyógyászati Szemle*, 74(5–6), 183–190.  
<https://doi.org/10.18071/isz.74.0183>
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53(1), 80–93.  
<https://doi.org/10.1037/0022-0167.53.1.80>
- Susánszky, É., Konkoly Thege, B., Stauder, A., & Kopp, M. (2006). A WHO Jól-lét Kérdőív rövidített (WBI-5) magyar változatának validálása a Hungarostudy 2002 országos lakossági egészségfelmérés alapján [Validation of the short (5-item) version of the WHO Well-Being Scale based on a Hungarian representative health survey (Hungarostudy 2002)]. *Mentálhigiéné és Pszichoszomatika*, 7(3), 247–255.  
<https://doi.org/10.1556/Mental.7.2006.3.8>
- Urbán, R., Kun, B., Farkas, J., Paksi, B., Kökönyei, G., Unoka, Z., Felvinczi, K., Oláh, A., & Demetrovics, Z. (2014). Bifactor structural model of symptom checklists: SCL-90-R and Brief Symptom Inventory (BSI) in a non-clinical community sample. *Psychiatry Research*, 216(1), 146–154.  
<https://doi.org/10.1016/j.psychres.2014.01.027>
- Watkins, M. W. (2013). *Omega*. Retrieved 09. 04. 2013 from <http://edpsychassociates.com/Software/Omega.zip>
- Weinhold, J., Hunger, C., Bornhäuser, A., Link, L., Rochon, J., Wild, B., & Schweitzer, J. (2013). Family constellation seminars improve psychological functioning in a general population sample: results of a randomized controlled trial. *Journal of Counseling Psychology*, 60(4), 601–609.  
<https://doi.org/10.1037/a0033539>
- Zinbarg, R. E., Revelle, W., Yovel, I., & Li, W. (2005). Cronbach's  $\alpha$ , Revelle's  $\beta$ , and McDonald's  $\omega$ H: their relations with each other and two alternative conceptualizations of reliability. *Psychometrika*, 70, 123–133.  
<https://doi.org/10.1007/s11336-003-0974-7>

## Appendix: Hungarian version of the EXIS.pers

A következő kérdőív olyan állításokat tartalmaz, melyek az embereknek a személyes kapcsolataikban (például szülők, párkapcsolat, gyermekek, barátok) megélt élményeire vonatkoznak. Kérjük, alaposan gondolja végig a kapcsolatait azokkal a személyekkel, akik fontosak Önnek! Kérjük, hogy a következő kérdéseket az UTÓBBI KÉT HÉT alapján válaszolja meg! Minden egyes állításnál azt a választ jelölje meg, amelyik a legközelebb áll saját tapasztalataihoz! Ha bizonytalan, azt a választ jelölje meg, amelyik legelőször eszébe jut!

A számomra fontos személyes kapcsolataimat illetően azt tapasztaltam az elmúlt két hét során, hogy...	Egyáltalán nem	Alig	Mérsékelten	Többnyire	Nagyon	Teljes mértékben
1. ... elégedett vagyok	1	2	3	4	5	6
2. ... összhangban vagyok a dolgok alakulásával.	1	2	3	4	5	6
3. ... békében vagyok a többiekkel.	1	2	3	4	5	6
4. ... úgy érzem, tartozom valahová.	1	2	3	4	5	6
5. ... odafigyelnek rám.	1	2	3	4	5	6
6. ... örülnek a jelenlétemnek.	1	2	3	4	5	6
7. ... képes vagyok arra, hogy tiszteletben tartsam a szükségleteimet.	1	2	3	4	5	6
8. ... képes vagyok eldönteni, hogy mennyire és hogyan legyek aktív a kapcsolataimban.	1	2	3	4	5	6
9. ... képes vagyok megfelelő határokat tartani magam és mások közt.	1	2	3	4	5	6
10. ... bízom abban, hogy van elég erőm megküzdeni a felmerülő kihívásokkal.	1	2	3	4	5	6
11. ... bízom a dolgok további pozitív alakulásában.	1	2	3	4	5	6
12. ... bízom abban, hogy el tudom fogadni azokat a dolgokat, amiken nem tudok változtatni.	1	2	3	4	5	6

13. Kire gondolt, amikor megválaszolta a fenti állításokat (több lehetőséget is megjelölhet)?

Szülők    Partner    Gyerekek    Barátok    Más személyek: .....